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ABSTRACT

The report documents New York City's Office of Educational Assessment's evaluation of the Division of Special Education Public Law 89-313 program for the 1986-87 school year. The program is intended to provided supplemental services suited to the individual needs of participating handicapped students based upon their individual education plans (IEPs) in accordance with their learning styles and functional levels. The program has two components: (1) the Regional Services Instructional Support Unit for students in self-contained classrooms and resource rooms in community school districts; and (2) Citywide Services Instructional Supplies and Equipment for students with more severe handicaps served in low-incidence programs. During the school year students received training and materials for both components as specified. Teachers and administrators overwhelmingly approved of the services provided. Eligible students in the Regional Services Instructional Support Unit exceeded the program objective (75% of students mastering 75% of their instructional objectives). Students in the Citywide Services component did not meet their program objectives; their performance was similar to that in the previous year's program cycle. (DB)

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DIVISION OF SPECIAL EDUCATION
P.L. 89-313 PROGRAM
1986-87

OEA Evaluation Report

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FINAL REPORT

September, 1987

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DIVISION OF SPECIAL EDUCATION
P.L. 89-313 PROGRAM
1986-87

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SUMMARY OF P.L. 89-313 PROGRAM
1986-87

- The 89-313 program was fully implemented. During the 1986-87 school year students received training and materials for both components as specified. Teachers and administrators overwhelmingly approved of the services provided.

- Eligible students in the Regional Services Instructional Support Unit (Component 1) not only met, but exceeded the program objective.

- Students in the Citywide Services component (Component 2) did not meet their program objectives; their performance was similar to that demonstrated in the previous year's program cycle.

The Division of Special Education Public Law 89-313 program was intended to augment the basic special education program of students formerly educated within state-operated or state-supported schools or institutions. To this end, the program provided supplementary materials, equipment, and training to teachers of more than 2,800 children.

The evaluation objective for Component 1, which served students in regional programs, stated that 75 percent of participating students would demonstrate mastery of a minimum of 75 percent of their instructional objectives with at least six objectives mastered by each student. The objectives were to be in the areas of maladaptive behavior, societal/survival skills, communication/language development, reading, mathematics, and career education. The evaluation objective for Component 2, which served severely handicapped students in low incidence programs, stated that 80 percent of the students would demonstrate mastery of 75 percent of their objectives (a minimum of three new skills) in one or more of the following curriculum areas: activities of daily living, career education, and communication/language development. The Office of Educational Assessment (O.E.A.) evaluated the implementation and outcomes of the program by interviewing a sample of teachers, administrators, and teacher trainers, and by collecting achievement data for all students. Objective criteria differed for each component because of the differing populations served.

In Component 1, 16 teacher trainers provided support to 5,562 staff members during 7,081 hours of training. Teachers received materials and equipment which supplemented basic instructional activities. They reported that program services were relevant and ultimately benefitted their students. Nearly 82 percent of Component 1 students mastered at least 75 percent

of their listed objectives, exceeding both the program goal and the previous year's figures. Overall 90.6 percent of the students attained at least six new skills. Increased funding for materials in this component may have contributed to the improvement in student performance.

In Component 2, three teacher trainers provided 1,123 hours of support to 1,331 staff members. Teachers received materials and equipment for use with their students, most often in the areas of general instruction and prevocational/vocational skills. Component 2 of the program also sponsored an Arts Residency Program which was well received by involved teachers and administrators. Component 2 teachers requested more assistance from teacher trainers.

Students in the Citywide Services component demonstrated performance similar to that of the previous program cycle. Close to 50 percent mastered 75 percent of their objectives. They attained an average of 3.3 new skills (slightly higher than the average number acquired in 1985-86). Almost 95 percent acquired at least one new skill.

Teachers and administrators reported that the P.L. 89-313 program provided much-needed and appreciated services to program eligible children. Criticisms of the program by school and program personnel were mainly directed towards methods of identifying and tracking eligible children. Teachers requested that they be able to provide input into ordering materials. Citywide services personnel expressed a need for more services and were sometimes unaware of what training was available.

The conclusions, based on the findings of this evaluation, lead to the following recommendations:

- To guarantee that services are provided in the most propitious manner, efforts should be made to improve the identification and tracking of program-eligible students. To facilitate tracking, eligibility should be recorded on students' Individualized Educational Programs (I.E.P.s).

- Greater efforts should be made to involve teaching staff in selecting materials and equipment.

- Greater effort should be made to inform Component 2 personnel of teacher trainer availability.

- The achievement objective for Component 2 students should be reassessed and possibly modified in light of historical performance patterns and the severity of their handicapping conditions.

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In addition to those listed on the title page, a number of other people contributed to this evaluation effort. We thank Denise McEvaddy for coordinating the field research. Field consultants included Bruce Owens and Martha Hare, for whose many hours of hard work we are grateful. Finally, we appreciate Shelia Moore's coordinating the report production and Bruce Roach and Dan Hunt's typing the drafts and final document.

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I. INTRODUCTION

This report documents the Office of Educational Assessment's (O.E.A.'s) evaluation of the Division of Special Education Public Law 89-313 program for the 1986-87 school year. This program is intended to provide supplemental services suited to the individual needs of participating students based upon their individual education plans (I.E.P.s) and in accordance with their learning styles and functional levels. The program, operated by the New York City Public Schools Division of Special Education (D.S.E.) under an entitlement grant, provided materials, equipment, and teacher training for a target population of 2,683 eligible students formerly educated in state-operated or state-supported schools and now in the New York City public schools.

The program had two components, each serving a different population: Component 1, the Regional Services Instructional Support Unit for students in self-contained classrooms and resource rooms in community school districts; and Component 2, Citywide Services Instructional Supplies and Equipment for students with more severe handicaps served in low-incidence programs operated by D.S.E.'s Office of Citywide Programs.

The program provided supplemental services to eligible students, either through staff development or through the provision of supplementary materials and equipment. The purpose of Component 1 was to support teachers of P.L. 89-313-eligible students in regional special education programs with skills training and supplemental materials so that they could provide

the most effective education consistent with each student's I.E.P. The purpose of Component 2 was to provide supplementary instructional supplies, equipment, and materials for P.L. 89-313 -eligible students in D.S.E. Citywide programs and to provide their teachers with the skills to use the equipment and materials.

P.L. 89-313 funding provided instructional supplies and materials for teacher use in selected curriculum areas. Component 1 included the curriculum areas of reduction of maladaptive behavior, societal/survival skills, reading, mathematics, communication/language development, and career education. Component 2 included the curriculum areas of activities of daily living, communication/language development, and career education. In addition, Component 2 teacher trainers provided training in three specialty areas: augmentative communication, career education/industrial arts, and media and technology.

STAFF

The staff for the P.L. 89-313 program consisted of a program manager, a teacher assigned to central headquarters to coordinate the provision of program services, and a paraprofessional at the School for the Deaf. There were nineteen teacher trainers; of these, three were Citywide Services positions.

The D.S.E. provided four training sessions for the teacher trainers. This training included such topics as an overview of the program, strategies for teaching mathematics, career education, language development through puppetry, curriculum

development and adaptation, ordering equipment and materials, record keeping, and the accurate writing of staff development reports (reports which the trainers must provide on their activities).

PARTICIPATING STUDENTS

The program served 2,804 students with handicapping conditions who were formerly educated within state-operated or state-supported schools or institutions. Every year the state provides a list of approved schools and institutions. Students who had previously attended any of these institutions for a minimum of 180 days now in attendance in a New York City school is eligible for the program.

Eighty-two percent of the Component 1 students were enrolled in elementary schools; 18 percent were enrolled in intermediate and junior high schools. Thus, four times as many students were in elementary schools as were in intermediate and junior high schools combined. Eligible students in both components ranged in age from four to 22 years. Their handicapping conditions generally fell into the categories of mental retardation (25 percent), emotionally disturbed (20 percent), specific learning disability (19 percent) and multiply handicapped (16 percent). The remaining 20 percent had various physical impairments.

REPORT FORMAT

In most sections of this report, components are referred to by numerical designation. The arrangement of the chapters is as

follows: Chapter II describes the program methodology. Chapter III presents Component 1 findings, examining achievement data on skill mastery, and analyzes factors facilitating or inhibiting program success. Chapter IV presents Component 2 findings, including a description of materials and equipment selected for program-eligible students, and presents factors which facilitated or inhibited program success. Chapter V offers conclusions and recommendations based upon the results of the evaluation.

II. EVALUATION METHODOLOGY

The evaluation assessed the implementation of the P.L. 89-313 program by examining the provision of services (materials, equipment, staff development). It also inspected the extent of student mastery of skills in specific curriculum areas.

EVALUATION OBJECTIVES

Component 1: Regional Services Instructional Support Unit

> Seventy-five percent of participating students will demonstrate mastery of a minimum of 75 percent of their objectives with a minimum of six objectives mastered by each student.

Component 2: Citywide Services Instructional Supplies and Equipment

> Eighty percent of participating students will demonstrate mastery of 75 percent of their objectives with a minimum of three objectives mastered by each student. A minimum of four objectives will be tried.

SUBJECTS

Component 1

Teachers of 1,170 eligible students received data retrieval forms for those students. Teacher trainers and school administrative personnel identified these teachers for O.E.A. They completed 1,130 forms at 213 community schools, a response rate of 96.6 percent. O.E.A. field consultants interviewed staff at 12 sites (two in each region and Staten Island). This represented 5.6 percent of the Component 1 sites.

Component 2

Teachers completed student data retrieval forms for 1,674 eligible students in 42 centrally operated Citywide Services program sites and their annexes, a response rate of 100 percent. O.E.A. interviewed staff at 15 sites (35.7 percent of Component 2 sites).

EVALUATION PROCEDURES

Sampling

All teachers in both components received data retrieval forms for all their students. O.E.A. selected sites in which to conduct interviews so as to represent all regions/boroughs as well as the various program service categories of 89-313-eligible students. O.E.A. sampled teachers in proportion to the occurrence of the program service categories and age groups of P.L. 89-313 students.

Instruments

The O.E.A.-developed student data retrieval form included general program information, student background information, and achievement data. Interview schedules for special education teachers, site supervisors, assistant principals, principals, and teacher trainers included questions about program operation, perceptions about program implementation, and a needs assessment.

Data Collection

Teachers completed the data retrieval form on an ongoing basis as they proposed objectives for students and students

acquired those skills as shown by the various criterion-referenced tests used by program teachers. O.E.A. staff carried out the 112 interviews of school and program personnel in March through June. They interviewed a school administrator, a site supervisor, and two teachers of P.L. 89-313-eligible students at each site.

Data Analysis

O.E.A. computed the proportions of objectives mastered for each student in each curriculum area and as measured by each criterion referenced test. It also counted the number of skills each student attained.

For interviews, O.E.A. tallied responses to questions, including those on the needs assessment. Particular attention was paid to staff perception of factors which either enhanced or inhibited program success.

III. EVALUATION FINDINGS FOR COMPONENT 1: REGIONAL SERVICES INSTRUCTIONAL SUPPORT UNIT

PARTICIPATING STUDENTS

The students for whom teachers completed data retrieval forms ranged in age from five to 19. Forty-eight percent were reported to have specific learning disabilities, 27 percent were considered mentally retarded, and 10 percent were emotionally disturbed. The remaining 15 percent had various physical or other impairments. A breakdown by program service category showed 30 percent of the regional students in Modified Instructional Service (MIS) I classes, 29 percent in MIS IV, 23 percent in MIS V, and 11 percent in MIS II classes. The remaining students were in other program service categories.

IMPLEMENTATION

The Regional Instructional Support Unit provided individualized assistance and workshops designed to improve teachers' ability to work with program-eligible students. In addition, it provided supplementary instructional materials and equipment and training in their use, so that teachers could provide the most effective education consistent with each student's Individualized Educational Program (I.E.P.).

Training

Sixteen teacher trainers reported that they provided support to 5,562 staff members during 7,081 hours of training. The sessions were distributed by major topic as follows: reading (25

percent), effective instruction (15 percent), mathematics (15 percent), classroom behavioral management (14 percent), and writing (eight percent). Other miscellaneous areas made up the remaining 23 percent of training. Teachers, school administrators, and trainers, selected some topic; the D.S.E. personnel required that trainers offer others topics.

The implementation of the regional component of P.L. 89-313 proceeded in the following way: teacher trainers introduced the program to teachers whom the trainers had identified as having eligible students in their classes. They discussed the availability of funding for materials and equipment, and familiarized the teachers with the program objectives and goals. They worked with the teachers on establishing goals and completing the data retrieval form. All 20 classroom teachers surveyed reported receiving an introduction to the program. When funds for materials were available, teacher trainers in consultation with teachers and/or other school staff selected and ordered appropriate material or equipment for students. They provided teachers with technical assistance in using materials and equipment, helped teachers with curriculum goals and behavioral management techniques, discussed individual students' needs and objectives, and in many cases, assisted the teachers of P.L. 89-313 students directly in the classroom. Workshops covered a wide variety of academic and administrative areas. While there are data on the number of persons trained, and the sessions and

hours of training in each major topic, there are no data which indicate how much of the training occured in workshops, how many people attended each workshop, or how many workshops a single individual might attend. Trainers were alerted to teacher needs through teacher requests or site supervisor recommendations. They also assessed these needs through their own observations.

Reading training (25.3 percent of the training hours) and materials were the most common areas for which teachers received services. (See Table 1.) Trainers provided reading training for the teachers of 75 percent of Component 1 students. Teachers of 62 percent of the students received reading materials. Math training (14.6 percent of the training hours) and materials were also extensive; the teachers of over half of the students receiving each of these services. Effective instruction took up 14.5 percent of the training hours and classroom/behavior management took up 13.8 percent.

Classroom teachers indicated that they received teacher trainer services for all their program-eligible students. Seventy percent of the teachers surveyed received services in three or more areas. Half the teachers considered reading the most important area in which they received assistance.

Factors Facilitating and Inhibiting Program Success

D.S.E. successfully implemented Component 1 of the P.L. 89-313 program; teachers reported that they received appropriate training, materials and equipment for their eligible students. Teachers and school staff were very appreciative of the training

TABLE 1

Number and Relative Percentage of Regional Students Whose Teachers Received Materials, Equipment, or Training, by Area (N = 1,130)

Area	Number of Students	Percent
Reading training	852	75.4
Reading materials	699	61.9
Math training	635	56.2
Math materials	554	49.0
Career education training	175	15.5
Career education materials	114	18.8
Other training	281	24.9
Other materials	213	18.8

Source: Component 1 teacher reports.

- Teachers of over 75 percent of the students received training in reading.
- Teachers of over 50 percent of the students received reading materials and training in mathematics.

provided. All teachers interviewed felt that the services provided were relevant to their students and that their students ultimately benefitted, particularly when the teachers had input into ordering materials. Teachers welcomed trainer assistance in selecting materials, as well as in setting goals and objectives for individual students.

While the program benefitted the involved students, improvements could be made upon several program elements. Personnel felt that the materials ordering process needed to be changed so that materials could be provided earlier in the year.

OUTCOMES

Classroom teachers assessed student performance with four criterion-referenced tests. Each examined the mastery of objectives selected for the P.L. 89-313 program. The Individualized Criterion Referenced Test (I.C.R.T.) assessed student attainment of reading skills; the Comprehensive Instructional Management System (CIMS) measured skills in mathematics; the Career Education/Prevocational Skills Assessment Inventory measured student achievement in career education; the Behavioral Characteristics Progression (B.C.P.), also known as VORT, gauged progress in a variety of curriculum areas: maladaptive behavior (strands 23-26, 29); societal/survival skills (strands 31-33, 42, 44, and 45); communication/language development (strands 18-22, 30, 46-48, 57, 58); career education (strands 25, 26, 33, 39, 42-45); reading (strand 34); and mathematics (strands 35, 36). On

the data retrieval form, teachers could itemize a maximum of 12 objectives for each instrument.

For the purposes of determining program success, and in accordance with the proposal, only those students who had attended a minimum of 20 days were included in the computation of mastery data. Nearly 82 percent of Component 1 students mastered at least 75 percent of their listed objectives. (See Table 2.) The evaluation objective was met. The percentage of students mastering at least 75 percent of attempted new skills increased substantially from 66 percent in 1985-86. Overall, 90.6 percent of the students attained at least six objectives, the minimum number proposed. This was an increase from the 87.3 percent attaining six objectives in the previous program cycle. Students attained an average of eight new skills. Nearly 99 percent mastered at least one new skill, up from 97.4 percent in the previous year.

More students working in the curriculum area of communication/language development than working in any other area mastered 75 percent of their objectives. (See Table 3.) Only in the areas of maladaptive behavior and mathematics did less than 75 percent of the students attain 75 percent of their skill objectives. The percentage of students achieving 75 percent mastery as measured by each assessment instrument is presented in Table 4. Students performed similarly on all instruments, the greatest percentage mastering 75 percent of their objectives in

TABLE 2

Frequency Distribution of Number of Skills Mastered[a] by Component 1 Students Who Attended at Least 20 Sessions (N = 1,090)

Number of Skills Mastered	Number of Students	Percent of Students	Cumulative Percent
15+	29	2.7	2.7
14	17	1.6	4.2
13	22	2.0	6.2
12	30	2.8	9.0
11	54	5.0	13.9
10	98	9.0	22.9
9	111	10.2	33.1
8	320	29.4	62.5
7	195	17.9	80.4
6	111	10.2	90.6
5	46	4.2	94.8
4	21	1.9	96.7
3	9	.8	97.5
2	8	.7	98.3
1	4	.4	98.6
0	15	1.4	100.0

[a]All objectives in the areas of maladaptive behavior, societal survival skills, communication/language development, reading, mathematics, and/or career education.

- At least six objectives were mastered by 90.6 percent of the students.
- All but 15 students mastered at least one objective.

TABLE 3

Percent of Component 1 Students, Attending at Least 20 Sessions Who Mastered 75 Percent of Their Objectives in Target Curriculum Areas

Curriculum Area	Total Number of Students[a]	Students Mastering 75 Percent of Their Objectives	
		Number	Percent
Maladaptive Behavior[b]	(280)	192	69
Societal/Survival Skills[c]	(148)	117	79
Communication/Language Development[d]	(297)	248	84
Reading[e]	(895)	704	79
Mathematics[f]	(886)	656	74
Career Education[g]	(666)	502	75
All Areas	(1,075)[h]	831	77

[a] Baseline comprised of Component 1 students attending at least 20 sessions.

[b] B.C.P. strands 23-26 and 29.

[c] B.C.P. strands 31-33 and 42-45.

[d] B.C.P. strands 18-22, 30, 46-48, 57 and 58.

[e] I.C.R.T. and B.C.P. strand 34.

[f] CIMS and B.C.P. strands 35 and 36.

[g] Career Education Pre-Vocational Skills Assessment Inventory, B.C.P. strands 25, 26, 33, 39, 42, 44, and 45.

[h] Students may be included in more than one area.

- Over 75 percent of the students mastered 75 percent of their objectives in Societal/Survival Skills, Communication/Language Development, Mathematics, and Career education.

TABLE 4

Percent of Component 1 Students,
Attending at Least 20 Sessions, Who Mastered 75 Percent
of Their Objectives as Measured by Each Assessment Instrument

Assessment Instrument	Total Number of Students[a]	Students Mastering 75 Percent of Their Objectives	
		Number	Percent
VORT	663	525	79.2
I.C.R.T.	729	587	80.5
Career Education	551	441	80.0
CIMS	665	468	70.4
All Instruments[b]	1,087	881	81.0

[a] Baseline comprised of Component 1 students attending at least 20 of the relevant sessions.

[b] Student achievement may have been assessed by more than one instrument.

- Over 75 percent of the students mastered at least 75 percent of their objectives as measured by all instruments except CIMS Assessment Inventory.

reading, the lowest percentage mastering 75 percent in mathematics.

IV. EVALUATION FINDINGS FOR COMPONENT 2: CITYWIDE SERVICES INSTRUCTIONAL SUPPLIES AND EQUIPMENT

PARTICIPATING STUDENTS

Component 2 provided supplementary supplies and equipment to 1,674 P.L. 89-313-eligible students at 42 sites and their annexes. The target population ranged from four to 22 years of age. Participants evidenced a number of low-incidence handicapping conditions, and were in a variety of program service categories. Most program-eligible students were in Specialized Instructional Environment (SIE) VII (Social and Emotional Needs) and SIE II (Rehabilitations with Physical Adaptations, 20 percent each). Other program service categories with sizeable 89-313 populations included SIE V (Occupation Education Skills, 18 percent), SIE III (Functional Skills with Communication, 13 percent), SIE I (Intensive Physical Adaptations/Functional Life Skills, 10 percent), and SIE VI (Intensive Communication and Social Skills, eight percent).

IMPLEMENTATION

The Citywide Services Instructional Supplies and Equipment program focused on enhancing existing programs and operating four augmentative communication centers. It provided instructional supplies and equipment to teachers of eligible students and offered assistance in using the new supplies to benefit the students.

Training

Each of three teacher trainers addressed student needs in a selected area: augmentative communication, career education/industrial arts, and media and technology. The three teacher trainers reported that they provided 1,123 hours of support to 1,331 staff members. Trainers assisted teachers by providing individual and group training in their respective areas of expertise, and by selecting and ordering materials and equipment. They gave workshops, taught the use of materials, and checked lesson plans. Major topics covered during training included communication and language (which comprised 32.0 percent of the training), prevocational and career education (22.9 percent of the training hours), activities of daily living (14.4 percent), computer-assisted instruction (10.7 percent), and classroom/behavioral management (10.2 percent).

Materials

Teachers of P.L. 89-313-eligible students received a total of 4,449 items. Table 5 presents categories of material and training received by these classroom teachers. While teachers most frequently ordered general instructional materials, teachers of over 50 percent of Component 2 students received materials or equipment in the area of pre-vocational/vocational instruction and 42 percent received audio-visual hardware.

TABLE 5

Number and Relative Percentage of Citywide Students Whose Teachers Received Materials, Equipment, or Training (N = 1,674)

Relative Category	Number of Students	Percent
Instructional materials (general)	1,158	69.2
Pre-vocational/vocational	890	53.2
Audio-visual hardware	713	42.6
Computer hardware and software	473	28.3
Other materials/equipment	458	27.4
Communication equipment and materials	409	24.4
Adaptive equipment	348	20.8
Training	301	18.0

Source: Component 2 teacher reports.

- Teachers of over 50 percent of the students received general instructional materials and/or prevocational materials.

Arts Residency Program

Arts programs such as Young Audiences, Creative Arts Team Network, and Reading Through the Arts, provided arts residencies to program-eligible children. Program activities included providing assemblies (up to two times a month), assisting teachers with the presentation of skills and materials, giving student workshops, and providing arts therapists. All teachers interviewed who had come in contact with the arts programs responded favorably. Teachers said they integrated the arts experiences into their ongoing class activities and reported that students responded well to the programs.

Factors Facilitating and Inhibiting Program Success

D.S.E. successfully implemented Component 2 of the P.L. 89-313 program; teachers of eligible students received appropriate materials and equipment for use with their students. All administrators and teachers interviewed reported that the materials purchased helped the students increase their skills as well as their attention and motivation.

Teacher trainers and administrators felt that a better system was needed to identify and track P.L. 89-313-eligible students so that all eligible children could be served as quickly as possible. They complained that eligibility lists were outdated.

Teachers and administrators complained that there was difficulty in getting eligible students into the 89-313 data bank. Since there was a delay between listing eligible students

and offering services to them, materials and equipment sometimes arrived too late for use by the designated eligible students. It was suggested that student eligibility status be listed on the I.E.P.s for better tracking.

While teachers praised the program's materials, equipment and training, they reported that a few changes would result in greater program success. Some teachers requested greater input in ordering materials and equipment. Teachers and administrators wanted delivery of materials and equipment to proceed in a timely fashion. Teachers desired more assistance from teacher trainers in selecting and ordering materials, especially computer software. Because only three teacher trainers served Component 2, individual trainer assistance was limited. Only ten percent of the classroom teachers surveyed in Citywide programs reported receiving this trainer support. Over 40 percent of interviewed teachers who had program-eligible students did not know that the services of a teacher trainer were available.

OUTCOMES

Teachers used the B.C.P. (VORT), the Track IV in-Depth Analysis, and the Career Education/Prevocational Skills Assessment Inventory to measure student skill mastery. A single instrument or combination of instruments measured mastery of skills in each of the three curriculum areas as follows: B.C.P. strands 3-10, 23, 24, and Track IV Content Areas 2 and 6 contained objectives in the area of activities of daily living. B.C.P. strands 18-22, 30, 46-48, 57, 58 and Track IV Content Area

4 measured communication/language development. The Career Education Pre-vocational Skills Assessment Inventory, B.C.P. strands 25, 26, 33, 39, 42, 45, and Track IV Content Area 8 measured career education. The analysis includes data only from those students who attended at least 20 sessions and attempted at least four skill-objectives.

Forty-eight percent of the students mastered 75 percent of their objectives. Since this is lower than the proposed 80 percent, the evaluation objective for Component 2 was not met. This is similar to, although slightly lower than the 51 percent acquiring 75 percent of their attempted new skills the previous year. In 1986-87, 71.4 percent of the students mastered the minimum three objectives, compared to 76.6 percent in the previous program cycle. (See Table 6.) Students mastered an average of 3.3 objectives, slightly higher than the average of 2.8 attained in the prior year. Sixty-eight students (4.9 percent) acquired no new skills, a lower percentage than that found in 1985-86 (7.3 percent).

The percentage of students achieving 75 percent mastery in each subject area appears in Table 7. Students performed similarly in all areas, mastering close to 50 percent in each. Results were similar to those obtained in 1985-86 with the exception that performance in activities of daily living was better in 1985-86 and in career education better in 1986-87. A breakdown of student mastery as measured by each assessment instrument is given in Table 8. More students mastered 75

TABLE 6

Frequency Distribution of Number of Skills Mastered by Component 2 Students Who Attended at Least 20 Sessions (N = 1,386)

Number of Objectives Mastered	Number of Students	Percent of Students	Cumulative Percent
12+	36	2.4	2.6
11	2	.1	2.7
10	10	.7	3.5
9	21	1.5	5.0
8	45	3.2	8.2
7	43	3.1	11.3
6	59	4.2	15.6
5	114	8.2	23.8
4	380	27.3	51.2
3	280	20.1	71.4
2	216	15.5	87.0
1	112	8.1	95.1
0	68	4.9	100.0

[a] Total objectives measured by all assessment instruments

- Over 71 percent of the students attained at least three objectives in any academic area.
- Ninety-five percent of the students mastered at least one skill.

TABLE 7

Percent of Component 2 Students, Attending at Least 20 Sessions Who Mastered 75 Percent of Their Objectives in Target Curriculum Areas

Curriculum Area	Total Number of Students[a]	Students Mastering 75 Percent of Their Objectives	
		Number	Percent
Activities of Daily Living[b]	(532)	265	50
Communication/Language Development[c]	(649)	352	54
Career Education[d]	(908)	492	54
All Areas	(1,304)[e]	625	48

[a] Baseline comprised of Component 2 students attending at least 20 sessions.

[b] B.C.P. strands 3-10, 23, 24, and Track IV content areas 2, 6.

[c] B.C.P. strands 18-22, 30, 46-48, 57, 58 and Track IV content area 4.

[d] Career Education Pre-Vocational Skills Assessment Inventory, B.C.P. strands 25, 26, 33, 39, 42, 44, 45, and Track IV content area 8.

[e] Students may be included in more than one area.

- More than half of the students mastered 75 percent or more their objectives in Activities of Daily Living, Communication/Language Development, and Career Education.

TABLE 8

Percent of Component 2 Students, Attending at Least 20 Sessions, Who Mastered 75 Percent of Their Objectives as Measured by Each Assessment Instrument

Assessment Instrument	Total Number of Students[a]	Students Mastering 75 Percent of Their Objectives	
		Number	Percent
VORT	895	443	49.5
Track IV	302	138	45.7
Career Education	252	155	61.5
All Instruments[b]	1,386	702	50.6

[a] Baseline comprised of Component 2 students attending at least 20 of the relevant sessions.

[b] Student achievement may have been assessed by more than one instrument.

- Students' performance on the Career Education Pre-Vocational Skills Assessment Inventory was higher than on the other instruments.

percent of their objectives on the career education assessment instrument than on the VORT or Track IV instruments.

V. CONCLUSIONS AND RECOMMENDATIONS

Interviews with teachers, administrators, and teacher trainers in both components of the P.L. 89-313 program for 1986-87 indicate that program services generally met the individual needs of students, and that the materials, equipment, and training made available by P.L. 89-313 funds supplemented the basic instructional activities for program-eligible students.

Of the 2,476 students for whom there were sufficient data, 98 percent acquired skills in at least one of the following curriculum areas: communication/language development, activities of daily living, reduction in maladaptive behavior, societal/survival skills, career/pre-vocational education, reading, and/or mathematics. This represents an increase of four percent over the previous program cycle. Students attained a mean of 5.5 objectives, similar to last year.

Analysis of the data collected in the evaluation of the two components indicates that Component 1 students in community schools not only met, but exceeded, the evaluation objective. The percentage of students who mastered 75 percent or more of their attempted objectives increased from what it had been in the previous program cycle. The increase in funding for materials, as had been recommended last year for Component 1 students, may have been a factor in this improvement. Although the average number of new skills attained overall for regional students dropped to eight from ten in the previous year, the number of students demonstrating mastery of at least 75 percent of their

listed objectives increased substantially, and more students attained at least six new skills than in the previous year. These phenomena may be related to staff development activities in 1986-87 which taught teachers how and when to propose new objectives for students (i.e., only after earlier ones were met). This had been a recommendation in 1985-86 which the 1986-87 program implemented. Thus while students mastered fewer skills overall, many more students mastered a greater proportion of the objectives set for them.

In Component 2, the percent of students mastering 75 percent of their objectives was well below the 80 percent specified the evaluation objective. However, it was similar to what was obtained in the prior year. That this figure has been consistently closer to 50 percent than the proposed 80 percent for two years seems to indicate that the objective should be reassessed to reflect what may be realistically expected from the population involved.

Personnel interviewed in both components were positive in their assessment of program services, but felt that there was room for improvement. In the 1986-87 cycle, perceived limitations included identifying and tracking students via the data bank, delays in acquiring materials and equipment, and in Component 2, too little input by teachers into selecting and ordering materials and too little assistance from trainers in this area. Teachers in both components desired increased teacher trainer time. It is possible that increased trainer

assistance might result in a higher rate of mastery for Component 2 students.

The conclusions, based upon the findings of this evaluation, lead to the following recommendations:

- To guarantee that services are provided in the most propitious manner, efforts should be made to improve the identification and tracking of program-eligible students. To facilitate tracking, eligibility should be recorded on students' I.E.P.s.

- Efforts to involve teachers in selecting materials and equipment should be augmented.

- Greater effort should be made to inform Component 2 personnel of teacher trainer availability.

- The achievement objective for Component 2 students should be reassessed and possibly modified in light of historical performance patterns and the severity of their handicapping conditions.